



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/694,838

10/29/2003

Jin Ook Kim

054358-5019

2506

9629

7590

01/23/2006

MORGAN LEWIS & BOCKIUS LLP  
1111 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20004

EXAMINER

PATEL, ASHOK

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/694,838

Applicant(s)

KIM, JIN OOK

Examiner

Ashok Patel

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 14-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 100501
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2879

1. Applicant's election of Group I, claims 1-13 in the reply filed on 11/04/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 8 and 10-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "the at least two monomers" at line 2 lacks antecedent basis. The at least two monomers are recited in claim 3, not claim 7 or 1. It appears that claim 7 should depend on claim 3 (instead of claim 1) to provide antecedent basis for terms "the at least two monomers" and "the net" in claim 8. For the purpose of action on merits, the Examiner tentatively assumes dependency of claim 7 on claim 3, not on claim 1.

The term "the blended structure" in claims 10 and 12 lacks antecedent basis.

The term "the net structure" lacks antecedent basis in claim 11.

Claim 13 is necessarily rejected since it depends upon claim 12.

Art Unit: 2879

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakakibara et al (USPN 6007928).

As to claims 1 and 2, Sakakibara et al disclose applicant's claimed organic EL device including: first and second electrodes (2, 4) over a substrate; and an organic emission layer (3) between the first and second electrodes, and having a blended structure of a block copolymer and an organic polymer emission material (at least col. 2, lines 45; col. 4, lines 5-15; col. 4, lines 19-24; col. 5, lines 22-30; col. 6, paragraph 13-39; Table 1; col. 7, lines 19-28).

As to claim 3, the block is formed of two monomers (Table 3). As to claim 3, an anionic polymerization process limitation renders the claim of a product-by-process nature. The process limitation recited therein is not given a patentable weight. Even though product-by-process claim is limited by process, determination of patentability is based on the product itself. The patentability of a product does

Art Unit: 2879

not depend on its method of production. If the product in the product-by-process claim is same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process." MPEP 2113.

Accordingly, no patentable weight is given to process step recited in claim 3.

As to claims 4-13, applicant's claimed polystyrene and polybutadiene monomers do not exist in the final product since they are intermediate or initial products used to obtain the final product. Therefore, these two claimed monomers, and their characteristics as recited in claims 5-13 are not given patentable weight.

As to claim 9, applicant is claiming the organic emission layer having different structure depending upon a spreading coefficient between monomers constituting the block copolymers and the organic emission material. However as mentioned earlier, the monomers are intermediate products. Since Sakakibara et al's device includes monomers, as recited in claim 9, the organic emission layer of Sakakibara et al's device would also include different structure.

As to claims 10 and 12, applicant is claiming the organic emission material distributed around the monomers in the blended structure when the spreading coefficient of the monomer to the

Art Unit: 2879

organic emission material is greater than 0. Also applicant is claiming the monomers distributed around the organic emission material in the blended structure when the spreading coefficient of the organic emission material to the organic emission material is greater than 0. As mentioned earlier, the monomers are intermediate products. Further, since Sakakibara et al's device includes the monomers and the organic emission material as claimed by applicant, the organic emission material or the monomers in Sakakibara et al's device would also be distributed respectively around the monomers or the organic emission material in the blended structure.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

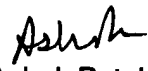
Okada et al, Li et al, Town et al, Lamansky et al and Burnell-Jones each are cited for showing a general structure of an electro-luminescent material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok Patel whose telephone number is 571-272-2456. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2879

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ashok Patel  
Primary Examiner  
Art Unit 2879